

# Putting FAIR Evidence into Practice

Citation for published version (APA):

Leung, T. I., & Dumontier, M. (2019). Putting FAIR Evidence into Practice. *Journal of General Internal Medicine*, 34(8), 1369-1369. <https://doi.org/10.1007/s11606-019-05021-7>

**Document status and date:**

Published: 01/08/2019

**DOI:**

[10.1007/s11606-019-05021-7](https://doi.org/10.1007/s11606-019-05021-7)

**Document Version:**

Publisher's PDF, also known as Version of record

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## LETTERS—CONCISE RESEARCH REPORTS

## Putting FAIR Evidence into Practice

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J Gen Intern Med 34(8):1369

DOI: 10.1007/s11606-019-05021-7

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To the Editors:

In the commentary by Guise et al., the authors describe a learning cycle for learning health systems in which evidence is rapidly generated, integrated into practice, and further evidence can be generated for further medical and clinical insights.<sup>1</sup> The novel aspect suggested is the archiving of data, whether from clinical trials, systematic reviews and meta-analyses, and other study types, in such a manner that enables rapid reproducibility and continuous updating of medical evidence. In the clinical world, this is indeed a novel approach: the realities of healthcare delivery—the fragmented systems of care, misaligned values and incentives, slow adoption of new effective technologies, or the recognizable black box in which clinicians enter burdensome amounts of data without the feedback of intelligent insights—could all significantly benefit from the findability, accessibility, interoperability, and reusability of data in all of its forms.

These principles form the FAIR guiding principles for digital objects, such as algorithms, workflows, as well as data<sup>2</sup>—identical to the digital knowledge objects that the authors describe, which include recommendations, guidelines, and other forms of evidence. Originating from a workshop of diverse stakeholders who convened in The Netherlands in 2014, the FAIR guiding principles were developed to address thorny problems of data discovery and reuse. For example, the principles stipulate that digital objects should have unique identifiers, high-quality metadata, unambiguous licensing, adhere to data standards, and follow community expectations.<sup>3</sup> Since then, the principles have been further delineated as a result of debates about each principle to ensure meaningful implementation.<sup>4</sup> Also, metrics for measuring FAIRness of digital objects have been developed.<sup>5</sup> Furthermore, FAIR principles have already been adopted across global

communities, including governments, governing bodies, publishers, and funding bodies.

The FAIR guiding principles may be a complementary and already widely accepted framework for the construction of digital infrastructure needed to empower a learning health system. Ensuring that all digital objects are readable by human and machine is no small feat. But it seems to us that in order to “mind the gap” between evidence generation and practice, and back again, also means that it is time to be FAIR.

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